REMARKS

The Final Office Action mailed March 24, 2005, has been received and reviewed. Claims 1-20 are currently pending in the application. Claims 9-20 have been withdrawn from consideration as being drawn to a non-elected invention. Claims 1-8 stand rejected. Applicants respectfully request reconsideration of the application.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent Application Publication No. US 2003/0186003 A1 to Nakano et al.

Claims 1-8 stand rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Nakano et al. (U.S. Patent Application Publication No. US 2003/0186003 A1). Applicants respectfully traverse this rejection, as hereinafter set forth.

Obviousness Rejection Based on U.S. Patent Application Publication No. US 2003/0186003 A1 to Nakano et al. and Further in View of U.S. Patent No. 6,780,924 to Shih et al. or Applicants' Admissions at Paragraph **[0014]** of the Specification

Claims 1, 3 and 4 stand rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Nakano et al. (U.S. Patent Application Publication No. US 2003/0186003 A1), as applied to claims 1, 3 and 4 above, and further in view of Shih et al. (U.S. Patent No. 6,780,924) or Applicants' admissions at paragraph **[0014]** of the specification for reasons of record and given below. Applicants respectfully traverse this rejection, as hereinafter set forth.

Obviousness Rejection Based on U.S. Patent Application Publication No. US 2003/0186003 A1 to Nakano et al. and Further in View of U.S. Patent Application Publication No. US 2001/0004487 A1

Claims 1-8 stand rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Nakano et al. (U.S. Patent Application Publication No. US 2003/0186003 A1), as applied to claims 1-8 above, and further in view of Kaneko et al. (U.S. Patent Application Publication No. US 2001/0004487 A1). Applicants respectfully traverse this rejection, as hereinafter set forth.

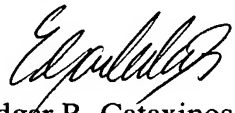
Submitted herewith is Declaration under 37 C.F.R. § 1.131 evidencing conception and/or reduction to practice of the subject matter of claims 1-8 before the filing date of the Nakano et al. reference. Thus, the 35 U.S.C. § 103(a) obviousness rejections of claims 1-8 are improper because without the Nakano et al. reference, the cited references do not teach or suggest each and every element of any of claims 1-8.

Reconsideration and withdrawal of the obviousness rejections of claims 1-8 are requested.

CONCLUSION

Claims 1-8 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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Telephone: 801-532-1922

Date: June 23, 2005
ERC/ps:jm
Document in ProLaw

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Chen et al.

Serial No.: 10/613,495

Filed: July 2, 2003

For: INKJET RECORDING MATERIALS

Confirmation No.: 4418

Examiner: P. Schwartz

Group Art Unit: 1774

Attorney Docket No.: 2858.01-5607US

NOTICE OF EXPRESS MAILING

Express Mail Mailing Label Number: _____

Date of Deposit with USPS: _____

Person making Deposit: _____

DECLARATION UNDER 37 C.F.R. § 1.131

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The undersigned, Tienteh Chen, Richard J. McManus, Tony Pidding, and Barbara Walczak, each declares and states:

1. I am an inventor or co-inventor of the invention described in one or more of the claims of U.S. Patent Application 10/613,495.

2. I am informed and believe that a communication from the U.S. Patent Office was mailed on or about March 24, 2005, regarding the above-referenced application. I am informed and believe that claims 1-8 were rejected under 35 U.S.C. 103 as assertedly being obvious over Nakano et al., U.S. Patent Application Publication US2003/0186003 A1, filed March 31, 2003, in combination with other references.

3. We conceived and/or reduced to practice the subject matter of claims 1-8 of U.S. Patent Application 10/613,495 in a NAFTA or WTO member country before the filing date of the Nakano et al. reference, *i.e.*, before March 31, 2003.

4. To show conception and/or reduction to practice of the subject matter of claims 1-8 of U.S. Patent Application 10/613,495 before March 31, 2003, attached hereto as Exhibit A is a copy of an invention disclosure (redacted for dates) and Exhibit B, a graph evidencing reduction to practice before the filing date (March 31, 2003) of the Nakano et al. reference.

5. The invention disclosure indicates that the invention includes an "ink receiving layer on a commercial off set and cast coated paper." (Exhibit A, page 2). The invention disclosure further discloses that the ink receiving layer is present at 3-5 GSM (*i.e.*, grams per square meter). (*See, Id.*) Exhibit B discloses the use of Zanders supergloss base paper (cast coated) in the print medium, wherein the Zanders supergloss base paper possesses the Sheffield smoothness and porosity characteristics of claim 1. (*See*, Exhibit B and as-filed Specification, paragraph [0024], Table 1 indicating the Sheffield smoothness and porosity characteristics of the Zanders supergloss base paper).

5. Accordingly, Exhibits A and B demonstrate possession and/or reduction to practice of the elements of claims 1-8 before the filing date of the Nakano et al. reference.

6. I hereby declare that all statements are made on my own knowledge, are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both under § 1001 of Title 18 of the United States Code, and that such willful statements may jeopardize the validity of the application or any patent issues therefrom.

Tientch Chen — Date: 6/6/2005

Richard J. McManus — Date: 5/27/05

Tony Pidding

27-MAY-05

Date

Barbara Walczak

5/27/05

Date

Document in Prot.law

EXHIBIT A

invent

Disclosure No. [redacted]

Invention Disclosure - DBi Document No. 6190

PD No.	Date Received	Collection
		IPG

General Information

Title Inkjet Recording Materials with High Image Quality and Performace

Abstract This invention describes the composition and construction of a inkjet recording materials. The inkjet recording materials of this invention has superior color gamut, Kod, humid bleed and humid fastness.

Projects Vegas

Products Everyday Photo Glossy Paper

Attachments

Attachments

- **Vegas_2_Trial_Formulations.xls** - for Zanders (Uploaded by Tienteh Chen) - four scale-up formulations
- **vegas_data.xls** [redacted] Vegas Weekly Photoscreening (Uploaded by Tienteh Chen)

Inventor Information

Inventors

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Description of Invention

Problems Solved
1. color gamma
2. Kod
3. light fastness
4. humid bleed
5. humid color shift

Prior Solutions
1. use photo based paper instead of paper based paper
2. high coatweight (>25 GSM) on photo based paper to absorb ink vehicle
3. multipayer coatings to seperate dye from ink vehicle and to improve coalescence
4. using mixtures of different water soluble polymers to achieve necessary IQ, et.al

Description The heart of this invention is the combination of very thin layer of polymeric or swellable ink receiving layer on a commerical off set and cast coated paper. Neither the composition nor the paper base used in this invention is new but the combination is novel. The main components of the ink receiving layer are (1) mixtures of two polyvinyl alcohols with 80 to 88% hydrolysis for optimum coalescence (2) boric acid as crosslinker to improve wet smudge and dry to touch(3) polysiloxane-polyethyleneoxide surfactant (Trade name Silwet) to reduce haze and mottle problem and (4) aluminum salts (aluminum chloride, aluminum formate) or poly(DADMAC) as mordants (5) cationic superfine colloidal silica (e.g. Ludox CL) to enhance Kod. The paper base used in this invention are coated paper (calendered or uncalendered) or cast coated paper.

Advantages Advantages of this invention are:
1) much lower coatweight than the high quality inkjet paper based on resin coated paper (swellable or porous). Usually 3-5 GSM is enough.
2) single layer coating
3) color gamut is superior to any other swellable or porous inkjet paper
4) black density (Kod) is higher than other swellabe or porous inkjet paper
5) humid bleed and humid color shift are much better than media based on photo based paper
6) light fastness is comparable to the media cost much higher

Invention History

Published No

Announced No - The name of this program is "Vegas". This product intended to replace Metro and would be named "the Glossy Everyday Photo Paper". The product plan to be released

Disclosed No

Next Three Months Yes

Described Yes - Descrsibed in notebook 2645-187 and 188 First described the evaluation of formulations for Vegas project.

Built Yes -

Government Contract No

Related Disclosure No

Innovation Workshop No

Witnesses

Witnesses	Julio Alonso	Hewlett-Packard Company	San Diego
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		Americas (11AU-5627)	
		eric_burch@hp.com	+1 (858) 655-5462

Classification

Recommended Classification IPG: Marking Materials/Media

Legal Techword **media coatings - non-porous - -**

Keywords inkjet media, swellable media, everyday photo paper, color gamut, polyvinylalcohol, aluminum formate, aluminum triformate, ludox CL, high gloss and Silwet surfactant

Administrative Record

Date Submitted

Legal Clerk	[redacted]	[redacted]	[redacted]
		Worldwide (0000-1623)	
		trisha.melcher@hp.com	+1 (541) 715-6348

PD Number

Date Received by Legal

	Rev. 1a	Rev. 1b	Rev. 1c	Rev. 1d	5	6	7	8	9
	60	60	60	60					
	40	40	40	40					
	0	0							
ormate			0	0					
	2	2	2	2					
	10	10	10	10					
	0.0%	0.5%	0.5%	0.5%					

Percent Solids =	1	1	1	1	
Sample Size =	8	8	8	8	

Percent Solids of Starting Materials

Mowiol 8-88	2	%
Mowiol 15-79	15.	%
Catiofast CS	3	%
Aluminum Diformate	4	%
Boric Acid		%
Ludox CL	30.	%
Silwet L-7210	10	%
Pluronic 25R4	10	%
	4	%
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%
		%

1

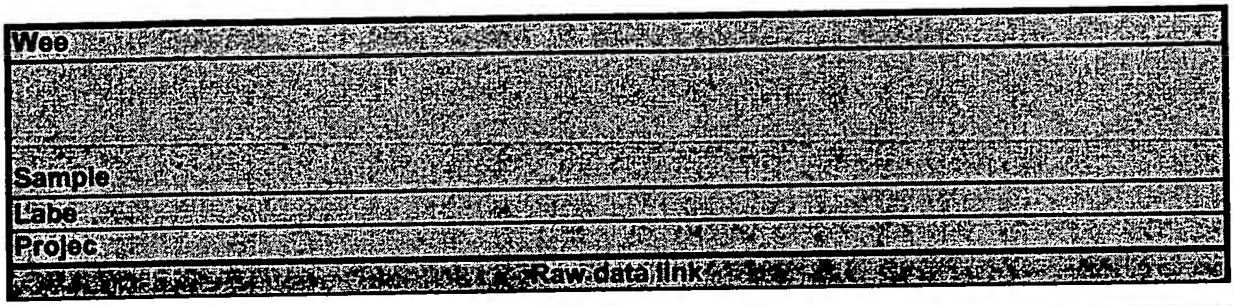
					%
					grams

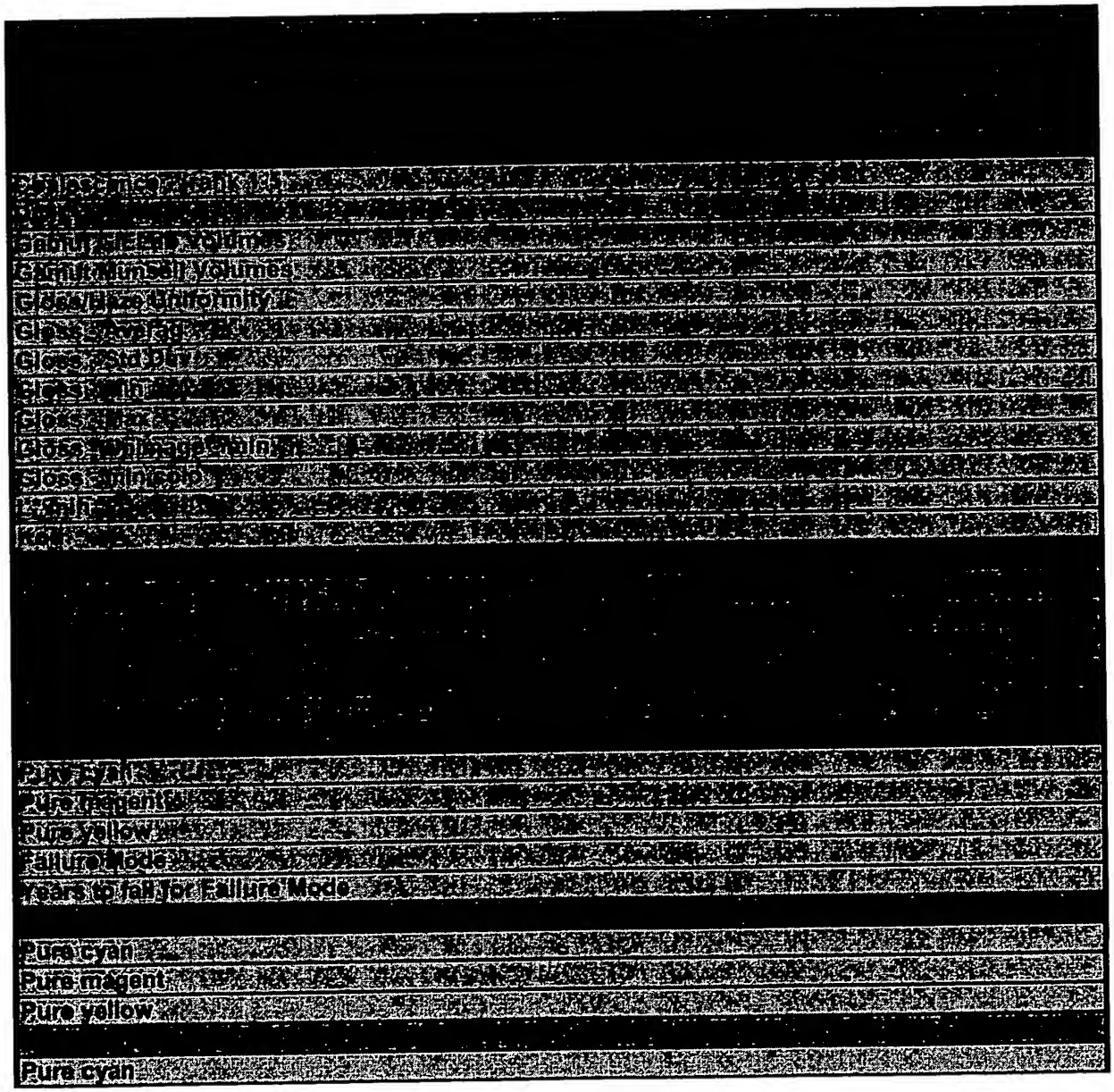
ghts(g)	% Solid	1	2	3	4	5	6	7	8	9	10
	22	26.793	26.793	27.030	26.106						
	15.4	25.517	25.517	25.743	24.863						
	30	0.000	0.000	0.330	1.595						
rmate	40	0.491	0.491	0.000	0.000						
	3	6.549	6.549	6.607	6.381						
	30.8	3.190	3.190	3.218	3.108						
		17.459	17.459	17.071	17.946	-4.000	-4.000	-4.000	-4.000	0.000	0.000
		14	14	14	14						
	100		0.40	0.40	0.40	0					
	100	0.4									

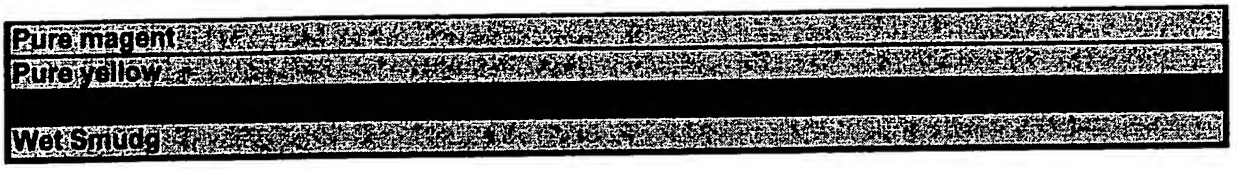
Photo Screening Dashboard

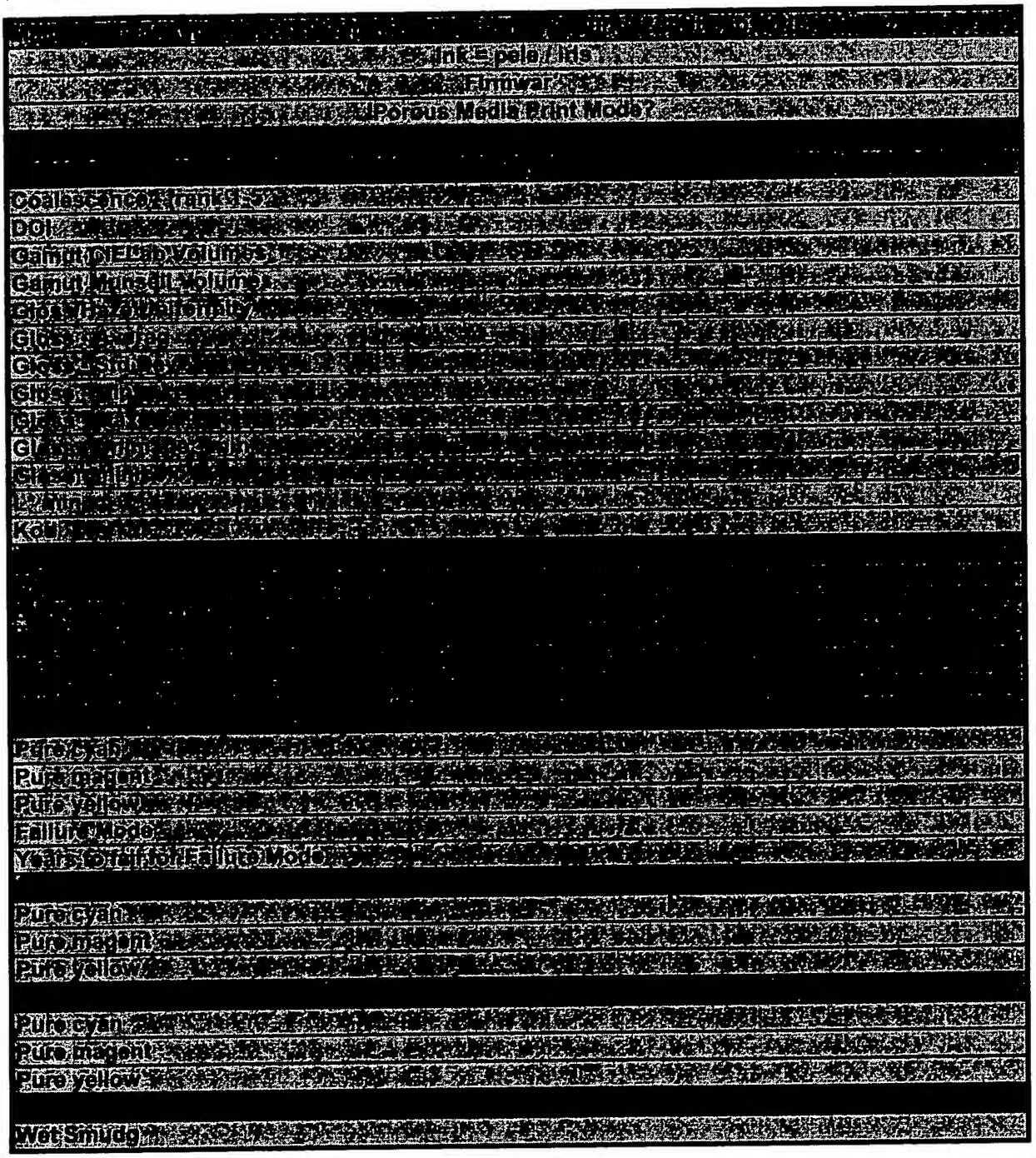
Thom Brown

Week 23









Week 32

Archie SU2 66D1 Control	Cabo	TT2645-24-1	TT2645-24-2	TT2645-24-3	TT2645-23-1	TT2645-23-2	TT2645-23-3	Archie SU2 66D1
02-32-0 Photo	02-32-0 Photo	02-32-0 VEGAS	02-32-0 VEGAS	02-32-0 VEGAS	02-32-0 VEGAS	02-32-0 VEGAS	02-32-0 VEGAS	02-32-0

..\..\mtl\Photo Screening\Waiting For Air Fade 2002\Week 32\week 32.xls

3.0	5.0	4.0	4.0	3.0	4.0	3.0	3.0
4.0	4.3	3.5	3.5	3.5	3.7	3.5	3.7
19	33	8	8	12	9	13	11
448566	396387	439968	471740	456228	456254	469419	396025
1715	1528	1684	1798	1743	1743	1790	1526
Poor	Good	Good	Good	Good	Average	Good	Good
30	28	10	10	14	13	15	15
14	2	2	3	3	3	4	5
17	25	8	7	11	9	12	10
52	31	14	14	19	18	21	25
35	1	6	6	8	10	5	7
Black 50%	lack 100%	genta 50%	Black 50%	Cyan 100%	Cyan 100%	Cyan 100%	Cyan 100%
6.2	14.1	7.9	3.7	4.1	7.9	5.3	17.7
2.22	1.83	2.04	2.38	2.40	2.23	2.25	1.52
10	18	7	6	7	6	7	7
6	13	3	3	3	4	3	4
251	455	165	152	165	150	185	173
155	323	84	79	74	94	81	97
4.8	5.1	2.9	2.3	1.6	3.0	2.2	4.4

[redacted]

137	67	409	346	229	278	253	383	[redacted]
2.	4.	1.	1.	1.	2.	2.	2.	[redacted]

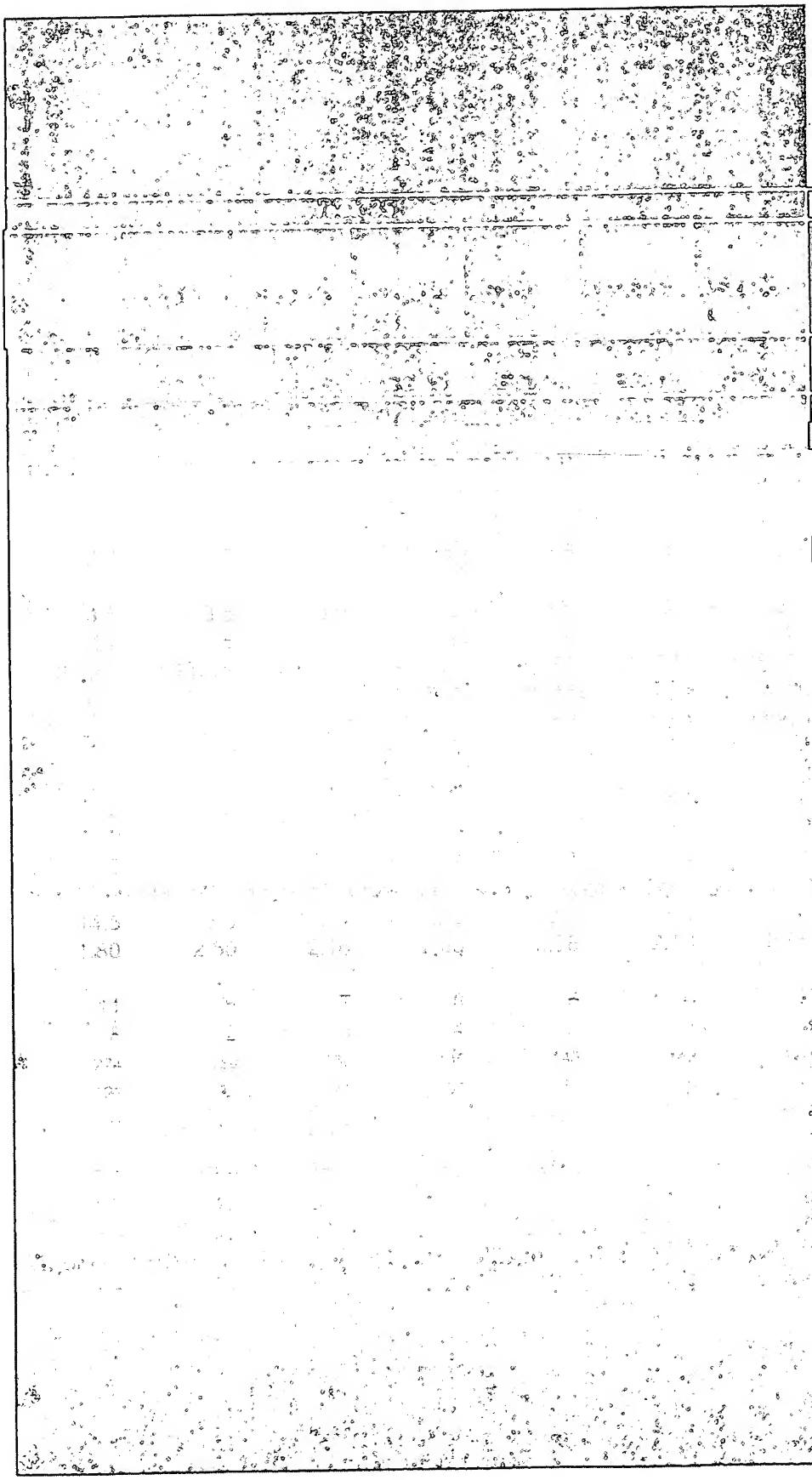
[redacted]

4.0	5.0	4.0	4.0	3.0	4.0	4.0	4.0	[redacted]
[redacted]								
4.5	4.5	4.5	4.0	3.5	4.5	4.0	4.0	[redacted]
32	33	11	10	10	12	11	15	[redacted]
442358	405448	459408	463741	433217	459512	472376	473666	[redacted]
1693	1560	1754	1770	1660	1754	1801	1805	[redacted]
Average	Good	Good	Good	Good	Good	Good	Good	[redacted]
35	33	11	12	11	17	16	20	[redacted]
9	8	1	2	2	3	3	4	[redacted]
25	25	10	9	9	11	11	13	[redacted]
53	49	13	14	13	19	19	26	[redacted]
28	1	3	3	4	6	8	4	[redacted]
Cyan 50%	Black 100	Cyan 100	Cyan 100	Black 100	Black 100	Magenta 1	Cyan 50%	[redacted]
3.8	9.6	2.6	2.4	5.1	3.2	2.2	2.2	[redacted]
2.43	2.01	2.60	2.58	2.28	2.65	2.71	2.78	[redacted]
[redacted]								
7	13	4	6	5	4	5	5	[redacted]
4	10	3	3	3	3	3	3	[redacted]
168	325	112	150	135	112	114	130	[redacted]
89	246	64	74	71	71	66	79	[redacted]
3.5	4.6	2.6	3.0	3.9	3.0	2.8	4.3	[redacted]

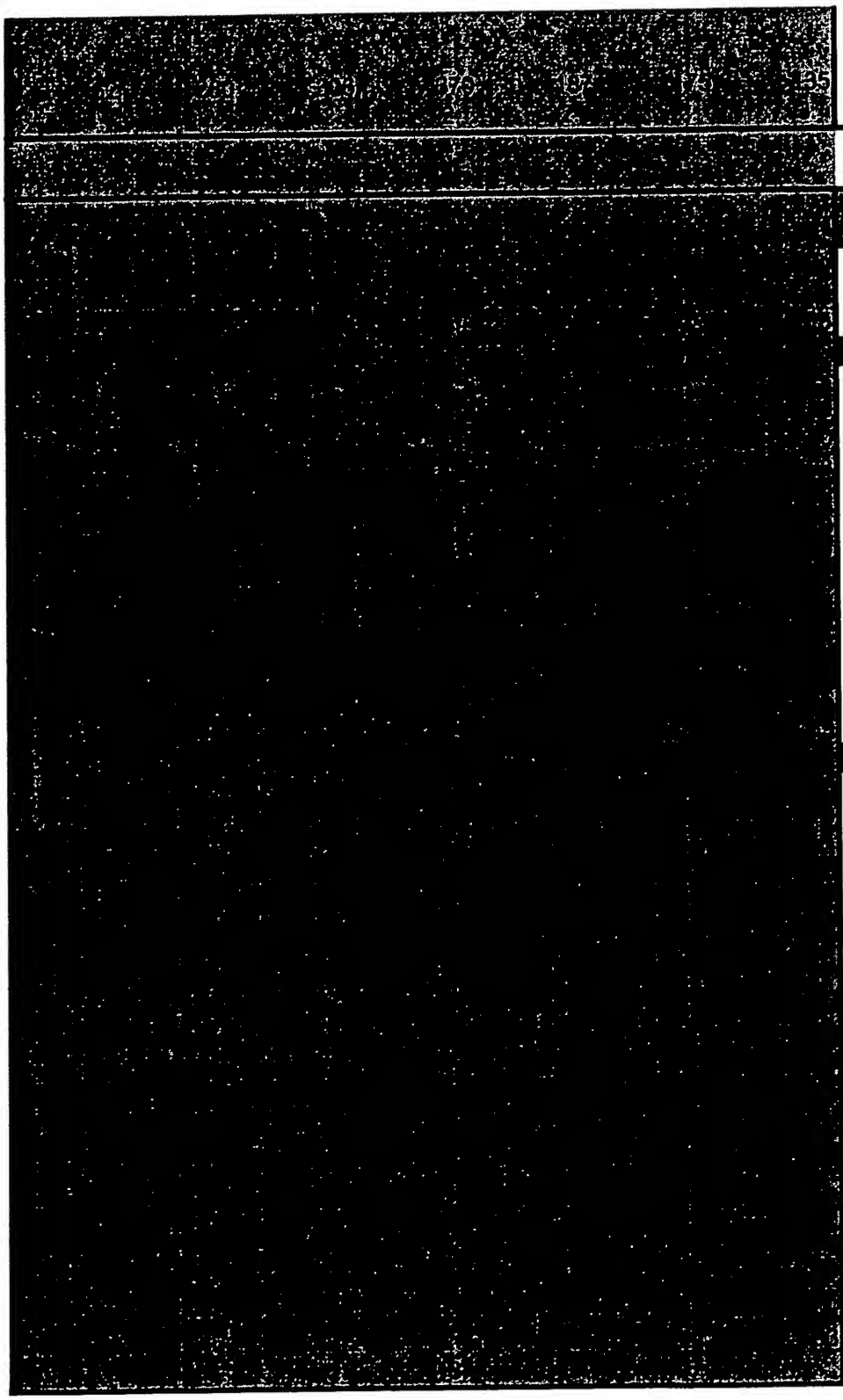
[redacted]

116	53	375	254	302	173	241	207	[redacted]
2.	4.	2.	2.	2.	2.	2.	2.	[redacted]

BEST AVAILABLE COPY



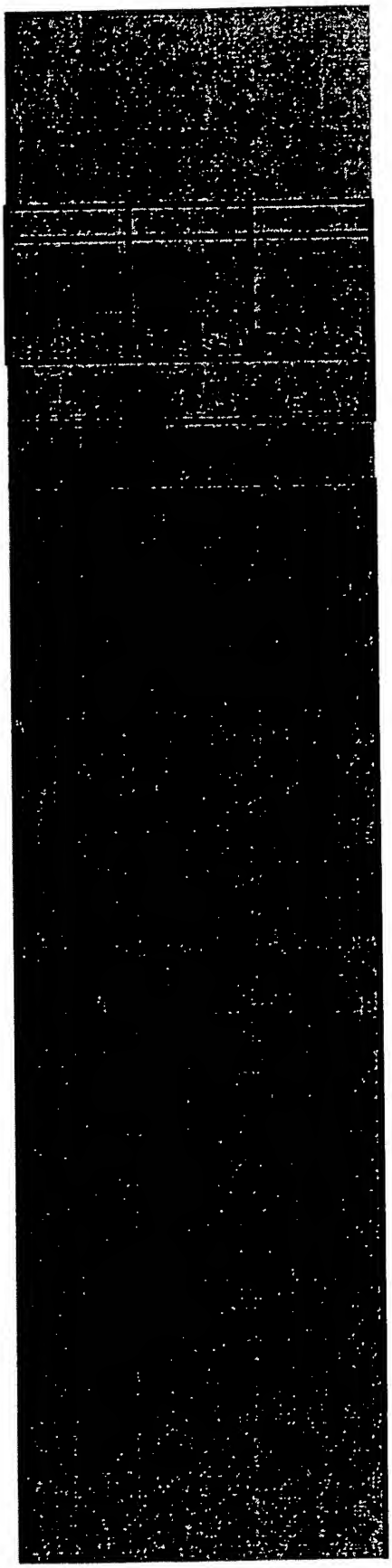
	Archie SU2 66D1 Control	Gabo
	02-36-0 Photo	02-36-0 Photo
	4.0	5.0
	4.0	4.5
	26	30
	419559	390458
	1611	1506
	Average	Good
	35	29
	11	3
	21	23
	56	32
	35	5
	Cyan 100%	Black 100%
	6.5	14.3
	2.20	1.82
	8	16
	5	13
	206	414
	119	318
	5.8	5.7
	8.6	3.5
	16.4	1.5
	34.4	5.6
	Pure Cyan	Magenta i
	8.6	1.4
	0.0	24.2
	0.0	35.6
	2.9	16.9
	1.7	38.5



0.2	47.8
2.9	19.2
120	73
3.	4.
4.0	5.0
4.3	4.5
42	36
426659	400654
1636	1543
Average	Good
38	33
9	7
31	26
56	48
25	3
Cyan 50%	Black 100
4.3	9.7
2.40	1.99
7	13
4	10
170	325
97	249
5.8	5.5
97.4	34.9
234.8	47.9
49.9	6.3
Dhue (R-B	Neutral Dh
27.8	5.1
0.8	27.5
0.0	44.1
2.9	18.8
2.7	38.1
0.4	63.6
2.5	21.1
114	166
2.	4.

	Week 3				
Jet Print PRO	TT 2645-39-4	AS 2605-87 2	AS 2605-87 3	AS 2605-87 5	AS 2605-87 6
02-36-0 Photo	02-36-0 Vega	02-36-0 Vega	02-36-0 Vega	02-36-0 Vega	02-36-0 Vega
5.0	4.0	4.0	3.0	3.0	4.0
4.3	4.0	3.5	3.5	3.0	3.5
28	14	13	12	10	11
386724	500946	456949	456686	450031	456752
1493	1903	1745	1744	1720	1744
Good	Good	Good	Good	Good	Good
17	16	14	13	13	11
5	4	1	2	2	1
14	13	12	11	9	10
26	21	16	17	15	13
0	8	2	6	5	4
Unimaged	Black 50%	lack 100%	lack 100%	lack 100%	Cyan 100%
16.9	2.5	4.3	4.3	5.2	4.8
1.73	2.71	2.43	2.43	2.37	2.37
30	7	6	6	7	7
15	5	3	3	2	2
762	183	150	157	165	165
384	130	71	66	56	58
4.4	4.4	4.7	4.2	3.3	3.1
2.4	10.5	12.9	8.1	9.0	12.2
2.3	39.2	18.3	7.4	43.7	1000.0
6.0	130.8	52.4	20.8	1000.0	1000.0
Magenta i	Magenta i	Cyan in N	Neutral Dh	Pure Cyan	Pure Cyan
1.9	9.3	11.4	6.7	9.0	12.2
25.8	0.4	1.2	1.0	0.2	0.4
43.4	0.2	0.8	0.6	0.5	1.2
13.1	0.2	3.3	3.8	3.3	4.2
53.3	2.4	1.4	1.3	0.8	0.6

60.4	2.7	0.4	0.4	0.9	0.4
22.3	0.6	3.9	3.1	2.3	4.2
50	204	202	260	253	212
4.	2.	2.	2.	2.	2.
5.0	4.0	4.0	4.0	4.0	4.0
4.5	4.3	4.0	4.0	3.0	4.0
39	17	10	9	11	11
404328	487774	460172	458309	457367	460124
1556	1856	1757	1750	1747	1757
> unimage	Good	Good	Good	Good	Good
19	21	13	12	11	12
3	3	2	1	1	1
14	15	10	9	10	10
24	24	15	13	14	13
0	6	5	4	4	3
Unimaged	Cyan 50%	Black 100	Black 100	Black 100	Magenta 1
10.3	1.7	2.4	2.3	2.6	2.1
2.00	2.88	2.67	2.66	2.66	2.74
17	7	5	5	4	5
6	5	3	3	3	3
432	178	122	117	112	119
142	114	79	79	69	71
4.6	4.9	4.3	3.3	4.2	4.2
8.6	59.5	113.2	38.4	1000.0	1000.0
10.6	32.4	41.4	35.4	1000.0	1000.0
6.4	43.5	52.5	32.6	1000.0	1000.0
Pure Yello	Neutral Dh	Yellow in	Yellow in	D(B) in D	D(B) in Dm
6.4	12.4	10.1	7.4	12.3	13.6
34.0	12.8	2.1	2.7	1.4	1.8
45.2	12.1	3.0	2.9	2.3	2.1
16.2	1.4	2.0	3.1	4.4	3.9
48.6	15.8	2.5	2.9	2.0	2.5
67.7	14.5	4.4	4.3	2.6	3.5
23.8	2.1	2.8	3.3	3.6	3.9
50	203	177	319	188	123
4.	2.	2.	3.	2.	2.



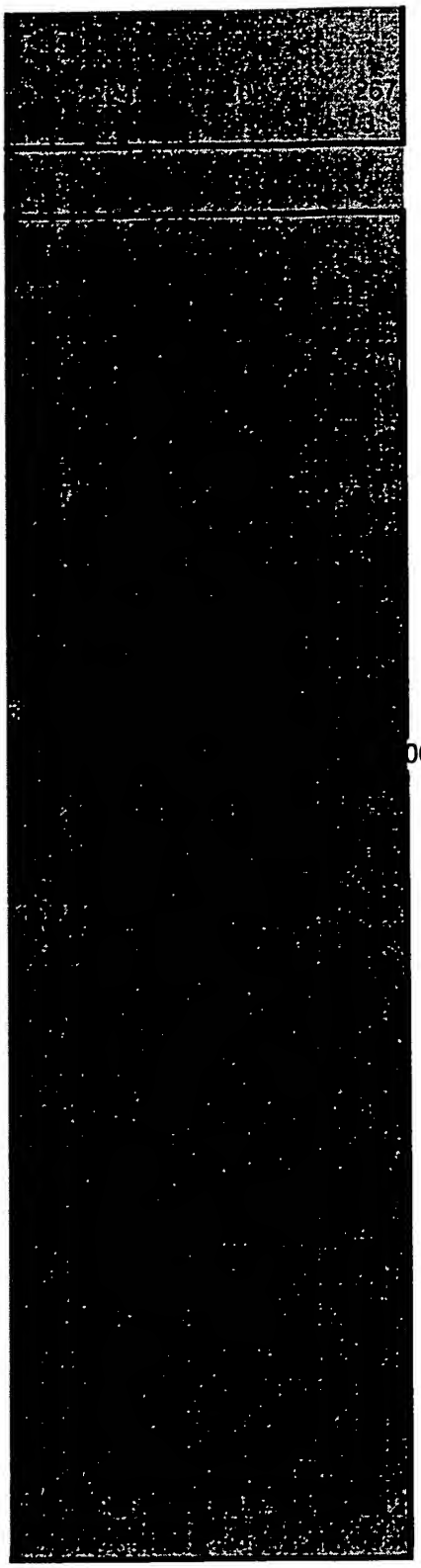


EXHIBIT B

Chemical	GT2655-105	GT2655-107		
Mowiol 8-88	60	60		
Mowiol 15-79	40	40		
Agefloc CF 50-P	2	2		
Boric Acid	0.5	0.5		
Ludox CL	10	10		
Silwet L-7605	0.50%			
Pluronic 25R4		0.50%		

5.5 GSM

4 sheets each heat gun dry

Base Paper I.D.			
1	coated	Ikono Gloss 150	Invention
2	coated	Mega Matt 150	Invention
3	cast coated	Zanders supergloss base paper (cast coated)	Invention
4	photo base	6 mil gel subbed photo paper	Comparison
5	photo base	9 mil gel subbed photo paper	Comparison
6	uncoated	RX-700	Comparison
7	uncoated	Hammermill Color Copy	Comparison
8	uncoated	Classical Crest	Comparison
9	uncoated	HP Multipurpose	Comparison

Sample	GT2655-105-1	GT2655-105-2	GT2655-105-3	GT2655-105-4	GT2655-105-5	GT2655-105-6	GT2655-105-7	GT2655-105-8	GT2655-105-9
Image Quality									
Gamut CIELab Volumes	401554	435791	449151	426661	414356	301480	304655	307576	272926
Gloss/Haze Uniformity	Average	Good	Good	Poor	Poor	Average	Average	Average	Average
Gloss - Average	16	6	47	25	36	1	1	1	1
Kod	2.1	2.5	2.6	2.4	2.1	1.6	1.5	1.6	1.5
Permanence									
Humid Bleed (mils) worst color	6.9	7	10.6	33.4	33.9	5.1	4.9	5	4.8
Humid Bleed (mils) k halo	4	4.1	6.8	18.2	18.1	3.6	3.3	3.7	3.2
Humid Color Shift - (ΔE94) avg 10 grays	4.7	4.4	5.5	6.1	6.1	3.0	3.1	3.0	3.0
	Invention	Invention	Invention	compariso	compariso	compariso	compariso	compariso	comparison

Sample	GT2655-107-1	GT2655-107-2	GT2655-107-3	GT2655-107-4	GT2655-107-5	GT2655-107-6	GT2655-107-7	GT2655-107-8	GT2655-107-9
Image Quality									
Gamut CIELab Volumes	442451	443591	448817	440748	433160	357802	319081	305201	133823
Gloss/Haze Uniformity	Average	Good	Average	Poor	Poor	Average	Average	Average	Average
Gloss - Average	17	7	49	37	39	1	1	1	1
Kod	2.4	2.5	2.6	2.4	2.4	1.8	1.6	1.6	1.0
Permanence									
Humid Bleed (mils) worst color	6.4	6.5	10.1	31	31.4	5	5.5	5.1	5
Humid Bleed (mils) k halo	4.2	4.1	7.1	21.6	20.7	4	4.3	4	4.3
Humid Color Shift - (ΔE94) avg 10 grays	3.8	3.3	4.0	5.3	5.2	2.8	3.3	3.1	6.2
	invention	Invention	Invention	compariso	compariso	compariso	compariso	compariso	comparison